## <u>ABSTRACT</u>

Chemical mechanical planarization of surfaces of copper, tantalum and tantalum nitride is accomplished by means of the chemical formulations of the present invention. The chemical formulations may optionally include abrasive particles and which may be chemically reactive or inert. Contact or noncontact CMP may be performed with the present chemical formulations. Substantially 1:1 removal rate selectivity for Cu and Ta/TaN is achieved.

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